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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/553,534

11/29/2005

Hubert Spreitzer

14113-00028-US

4132

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7590

12/03/2009

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EXAMINER

HEINCER, LIAM J

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

12/03/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**ADVISORY ACTION**  
***Response to Arguments***

Applicant's arguments filed November 23, 2009 have been fully considered but they are not persuasive, because:

A) The applicant's characterization of the R groups of Formula (I) as being "solubilizing groups" is misleading. The original specification indicates that the R groups allows for molecular weight control (6:18-29). This lower molecular weight is responsible for the increase solubility of the polymers (4:27-31). The original specification does not appear to indicate that the groups themselves affect the solubility of the polymer.

B) The applicants allegation that the polymers containing non-substituted arylene groups but substituted vinylene groups have increased solubility is not persuasive. The arguments of counsel cannot take the place of evidence in the record. *In re Schulze*, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965). See MPEP § 716.01(c). As stated in the final rejection, the prior art of record (namely Taylor et al.) indicates that non-arylene substituted polymers having substituted vinylene groups are not soluble. The applicants allegation does not overcome this evidence based on the prior art of record.

C) The applicants argument that the solubility is increased by the addition of substituents on the vinylene group is not germane. The issue is whether a person having ordinary skill in the art at the time of invention would be enabled to make a polymer have the claimed solubility parameter based on the disclosure of the original specification. Even with an increase in solubility, the original specification fails to allow a person having ordinary skill in the art at the time of invention to determine which polymers would be increased to the point that they would have the claimed solubility absent undue experimentation.

D) The Office agrees with the applicant that a working example is not required to establish enablement. When considering the factors relating to a determination of non-enablement, if all the other factors point toward enablement, then the absence of working examples will not by itself render the invention non-enabled. In other words,

Art Unit: 1796

lack of working examples or lack of evidence that the claimed invention works as described should never be the sole reason for rejecting the claimed invention on the grounds of lack of enablement. A single working example in the specification for a claimed invention is enough to preclude a rejection which states that nothing is enabled since at least that embodiment would be enabled. However, a rejection stating that enablement is limited to a particular scope may be appropriate. See MPEP § 2164.02. The instant rejection is a rejection stating that enablement is limited to a particular scope.

For a claimed genus, representative examples together with a statement applicable to the genus as a whole will ordinarily be sufficient if one skilled in the art (in view of level of skill, state of the art and the information in the specification) would expect the claimed genus could be used in that manner without undue experimentation. Proof of enablement will be required for other members of the claimed genus only where adequate reasons are advanced by the examiner to establish that a person skilled in the art could not use the genus as a whole without undue experimentation. See MPEP § 2164.02. As stated by the applicant "relevant considerations are the nature of the invention, the state of the prior art, and the relative skill of those in the art". In re Stephens, Benvau, and Benvau, 188 USPQ 659 (C.C.P.A. 1976). These issues were addressed in the final rejection. As shown by the state of the prior art, absent solubilizing groups on the arylene group, polyphenylene vinylene polymers are insoluble. Additionally, in GILCH polymerization, the presence of solubilizing groups is unpredictable in producing soluble products (final rejection, pages 2-3). Given the teaching in the prior art of insolubility of unsubstituted polymers and the unpredictability of the solubilizing side chains in GILCH polymerization, a person having ordinary skill in the art at the time of invention would not expect that the claimed genus could be made in the same manner as the species used in the working examples without undue experimentation.

***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Liam J. Heincer whose telephone number is 571-270-3297. The examiner can normally be reached on Monday thru Friday 7:30 to 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on 571-272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Eashoo/

Supervisory Patent Examiner, Art Unit 1796

LJH

December 1, 2009